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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : H.S. Roy and Jeff Young

Art Unit : 2176

Serial No. : 09/456,888

Examiner : Almari C. Romero

Filed : December 7, 1999

Title : FORMATTING CONTENT BY EXAMPLE

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

SUBMISSION OF APPEAL BRIEF

Further to the Notice of Appeal filed on August 23, 2004 and received in the U.S. Patent Office on August 26, 2004, the Applicant submits herewith an Appeal Brief in triplicate, and a check in the amount of \$340.00 for the Appeal Brief fee.

Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: October 26, 2004

Subroto Bose  
Subroto Bose  
Reg. No. 55,014

Fish & Richardson P.C.  
500 Arguello Street, Suite 500  
Redwood City, California 94063  
Telephone: (650) 839-5070  
Facsimile: (650) 839-5071

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**Mail Stop Appeal Brief - Patents**

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BRIEF ON APPEAL

**(1) Real Party in Interest**

The real party in interest is Adobe Systems, Incorporated, by virtue of an assignment from the inventors recorded in the U.S. Patent Office on March 13, 2000, Reel 010704, Frame 0546.

**(2) Related Appeals and Interferences**

There are no related appeals or interferences known to the appellant.

**(3) Status of Claims**

Claims 1-10, 12-15, 18, 22-25, 27-29, and 31-48 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,845,084 to Cordell et al. ("Cordell") in view of U.S. Patent No. 6,347,323 to Garber et al. ("Garber").

**(4) Status of Amendments**

There are no unentered amendments.

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**(5) Summary of Claimed Subject Matter**

The methods and apparatus of the claimed invention allow a designer to design a document visually using placeholders that have a representative content, where the designer defines the visual appearance of the document by specifying the format, style and layout of the representative content. The placeholders are bound to a content source, e.g., an online database, or a server that provides data such as an e-commerce server. In a presentation mode, the representative content of the placeholder is replaced by generated content based on the content source. Specification, page 7, lines 18-24.

Independent claim 1 recites a method for generating a document. The method comprises inserting one or more placeholders in the document, and binding each placeholder to a content source. Specification, page 7, line 25 – page 8, line 22. Each placeholder has representative content, and the representative content has associated formatting information. The method includes presenting the representative content of the placeholders according to the associated formatting information. Specification, page 7, lines 18-21; Figure 2A, 2B and associated text. The content for each placeholder is generated based on a corresponding content source. Specification, page 8, lines 6-14. In a presentation mode, the representative content of the placeholder is replaceable by content generated based on the content source bound to the placeholder, and the generated content is presented according to the formatting information associated with the corresponding representative content. Specification, page 9, lines 1-8; Figures 2A, 2B and associated text.

Independent claim 27 is directed to a computer program product that in essence implements the method of claim 1.

Independent claim 31 is directed to a system for generating a document. The system includes a processor and data storage device coupled to the processor. The system has means for inserting one or more placeholders in the document, and means for binding each placeholder to a content source. Specification, page 8, lines 6-22; Figure 2A, 2B and associated text. Each placeholder has representative content, and the representative content has associated formatting information. Specification, page 7, line 1 – page 8, line 5. The system also has means for compiling the placeholders into code to generate content for the document based on the content source bound to the placeholders, and means for presenting the placeholders. Specification, page

8, lines 23-25. Presenting the placeholders includes presenting the representative content of the placeholders according to the associated formatting information. The representative content of the placeholder is replaceable by content generated based on the content source bound to the placeholder. In a presentation mode, the generated content is presented according to the formatting information associated with the corresponding representative content. Specification, page 9, lines 1-8; Figures 2A, 2B and associated text.

One advantage of such a system is that a designer can use a WYSIWYG editor to create a dynamic web site design in HTML using the representative content, where the content of the dynamic web site is generated and displayed later when the dynamic web site is viewed. The system uses the format, layout, and style of the representative content to insert, format, layout, and style the generated content that is displayed instead of the representative content. Because the system uses HTML, any HTML tool can be used to refine or edit the design.

The system supports a designer-friendly approach to incorporating the content technology of ASPs in a Web site. Powerful features for Web site designers, programmers, and intranet or e-commerce developers are supported, including the ability to work on or off line; add content sources to a page without writing a single line of script code; highlight placeholder text and graphics linked to content; customize numeric formatting and replication of table rows; link to pages; preview pages using placeholder or actual content; and generate all HTML and ASP code necessary for automatic content generation.

The system makes it easy to integrate content into a web site. A web designer may create a web page using a conventional markup language and bind one of many database type fields to a portion of the markup language. Furthermore, the designer may replace the binding at a later time to another independent database to the same markup language portion. The two databases themselves may not be compatible to each other.

The web designer can have complete pixel-level control over HTML in a visual design environment, while automatically generating industry-compliant ASP or other server code. Designers can see exactly how their designs look on different platforms and browsers in an edit mode. Moreover, the system provides management tools to make it easier to create and maintain web sites. Furthermore, as the content of the database fields that are bound to a portion of the markup language is changed, the generated web page is changed accordingly.

The system lets graphic designers and publishers design and manage professional-quality web sites containing the latest multimedia features, without requiring any HTML programming.

**(6) Issues**

1. Are claims 1-10, 12-15, 18, 22-25, 27-29, and 31-48 properly rejected under 35 U.S.C. 103(a) as being unpatentable over Cordell et al., of U.S. Patent No. 5,845,084, in view of Garber et al., U.S. Patent No. 6,347,323.

**(7) Argument**

**1. Claims 1-10, 12-15, 18, 22-25, 27-29, and 31-48 are not properly rejected under 35 U.S.C. 103(a) over Cordell in view of Garber.**

**(A) Claims 1-5, 7-10, 13-15, 22, 23, 27, 29, 31, 36, 39, 41, 42, 43, and 44**

Claim 1 recites generating a document by inserting one or more placeholders in the document. Each placeholder has a representative content that has associated formatting information, and each placeholder is bound to a content source. The placeholders in the document are presented either by presenting the representative content of the placeholders or by presenting generated content based on the content source bound to the placeholder. The generated content is presented instead of the representative content in a presentation mode. Both the generated content and the representative content are presented according to the formatting information associated with the representative content.

Neither Cordell nor Garber disclose or teach the claimed subject matter.

Cordell discloses a network browser for displaying an HTML document with embedded graphical images. The network browser displays the HTML document before all the embedded graphical images have been received by displaying a graphical image of a placeholder icon instead of embedded graphical images for which the network browser does not know the size. Col. 5, lines 41-45. The placeholder inserted by the network browser is available locally at the network browser, and has height, width, and image characteristics that are known to the network browser. Col. 7, lines 56-65. After the embedded graphical images have been received, the HTML document is displayed again without the placeholder icons. Col. 8, lines 60-67. Cordell teaches a network browser that switches between a normal display mode and a placeholder

display mode depending on the receive data transfer rate. Col. 3, lines 11-16; Col. 3, line 66-Col. 4, line 8. One of the objectives of Cordell is to provide a network browser that displays available data for a HTML document by displaying placeholders for embedded graphical images in the HTML document not yet received at the network browser. Col. 8, lines 33-37.

**(A)(i) Cordell does not teach inserting placeholders in a document**

Cordell does not teach or disclose generating a document by inserting one or more placeholders. Cordell teaches a network browser that switches to the placeholder display mode if it encounters a reference to an embedded graphical image of unknown size and if the receive data transfer rate is less than a predetermined minimum receive data transfer rate. Col. 7, lines 31-56. The decision to switch to the placeholder display mode is made locally at the network browser by setting an internal flag. Col. 7, lines 31-36. The placeholders displayed by the network browser in Cordell are stored locally at the network browser and they are not part of the document that is being displayed by the network browser. Col. 7, lines 60-61. Thus, Cordell does not teach or disclose generating a document by inserting one or more placeholders in the document as recited in claim 1.

**(A)(ii) Cordell does not teach placeholders that have representative content**

Cordell fails to teach or disclose placeholders in a document, where the placeholders have representative content that has associated formatting information.

The dictionary meaning of representative is "representing or capable of representing, depicting, or portraying." Webster's II New College Dictionary, page 941 (Copyright 2001). Consistent with the dictionary meaning, the specification describes the representative content of the placeholders recited in claim 1 as content that represents the generated actual content for the placeholder that is displayed in the presentation mode. Specification, page 7, lines 18-21; page 10, lines 17-22; and Fig. 2A. The representative content placeholders allow a designer to design the visual appearance of the page using the representative or mock content instead of the generated content that is displayed in the presentation mode. The representative content of the placeholders allows the designer to create a page layout using the representative content and design the visual appearance of the page by formatting the representative content, e.g., by setting

font and style attributes for text; height and width for images; and borders, height, width, and cell spacing for tables.

Even assuming that Cordell teaches a document that includes placeholders, the placeholders in Cordell do not have representative content. The placeholders in Cordell have "known height, width, and image characteristics," and can be "a small (e.g., 25x25 pixel) graphical image." Col. 7, lines 56-65. Cordell teaches the use of placeholder icons that are displayed instead of graphical images that have an unknown size. The placeholder icons taught by Cordell do not have a representative content because their visual representation and formatting information that independent of the graphical image of unknown size being replaced by the placeholder. Col. 8, lines 39-54; and Fig. 5B-C. Thus, Cordell does not disclose or teach placeholders having a representative content as recited in claim 1.

**(A)(iii) Neither Cordell nor Garber teaches generating content for the placeholders based on the content source bound to the placeholder.**

The Examiner acknowledges that Cordell does not disclose generating content for the placeholder based on the content source bound to the placeholder. However, the Examiner asserts that Garber discloses "compiling the placeholders into code to generate content for the document based on the content source."

Garber discloses a method for preserving attributes of objects within a file that was created in a different environment from that in which the file was opened, enabling the attributes to be maintained after the file is saved. Abstract. Garber discloses creating an HTML document in a text editor by specifying the formatting and layout attributes for the objects within the HTML document, and retaining the specified attributes when the HTML document is opened, possibly modified, and saved in an HTML editor. Col. 7, 11-19.

Garber does not disclose or teach an HTML document that includes placeholders, and it does not disclose or teach an HTML document that includes representative content placeholders as recited in claim 1. The HTML editor in Garber is used to preserve the formatting and layout attributes of objects contained in the HTML document as they are modified. The formatting and layout attributes preserved in Garber include attributes such as "indentation level, tab spacing, [and] line breaks." Col. 7, lines 12-13. However, Garber does not disclose or teach either

binding a content source to a representative content placeholder, or generating content for the representative content placeholder based on the content source bound to the placeholder. Thus, Cordell and Garber, either alone or in combination, do not disclose or teach generating content for the placeholders based on the content source bound to the placeholder.

**(A)(iv) Neither Cordell nor Garber teach presenting the placeholder using either the representative content or the generated content, where both the representative content and the generated content are presented according to the formatting information associated with the representative content.**

Neither Cordell nor Garber, either alone or in combination, disclose or teach the placeholders as recited in claim 1. The placeholders recited in claim 1 can present two different visual representations. These placeholders can be presented by presenting the representative content of the placeholder according to the formatting information associated with the representative content. In a presentation mode, these placeholders are presented by generating content for the placeholder based on a content source bound to the placeholder, and presenting the generated content instead of the representative content. Both the generated content and the representative content are presented according to the formatting information associated with the representative content of the placeholder. Specification, page 9, lines 1-11. The placeholders in Cordell have only one visual representation, e.g., a graphical image that is available locally at the network browser. Col. 7, lines 59-65. Garber does not disclose or teach using placeholders, and the objects being edited in the HTML editor of Garber have only one visual representation, i.e., the visual representation of the object that is being edited. Col. 7, lines 20-28. Thus, Cordell and Garber, either alone or in combination, do not disclose or teach presenting placeholders using either the representative content of the placeholder or using the generated content for the placeholder.

**(A)(v) The Examiner has not met the basic criteria required to establish a *prima facie* case of obviousness.**

To establish a *prima facie* case of obviousness, the Examiner must make three basic showings. First, there must be some suggestion or motivation, either in the references or in the



knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Examiner has failed to make any of the three basic showings and consequently, no *prima facie* case of obviousness has been established. Thus, claim 1 is improperly rejected under § 103(a). Claims 2-5, 7-10, 13-15, 22, 23, and 36 depend directly or indirectly from claim 1 and are therefore improperly rejected for at least the same reasons. Claims 27 and 31 incorporate the features of claim 1 and are therefore improperly rejected for at least the same reasons. Claims 29, 39, 41, 42, 43, and 44 depend directly or indirectly from claim 27 and are therefore improperly rejected for at least the same reasons.

**(B) Claim 6**

Claim 6 depends from claim 34, and recites that generating content for the representative content placeholders comprises obtaining content from a database.

**(B)(i) Claim 6 is improperly rejected for reasons similar to those discussed in Sections (A)(i)-(A)(iv).**

Claim 6 depends indirectly from claim 1, and recites that generating content for the representative content placeholders comprises obtaining content from a database. The Applicant respectfully submits that claim 6 is improperly rejected for at least reasons similar to those discussed in Sections (A)(i)-(A)(iv) above.

**(B)(ii) Cordell or Garber do not disclose obtaining placeholder content from a database.**

Claim 6 is improperly rejected because neither Cordell nor Garber, alone or in combination, disclose generating content for a placeholder by obtaining content from a database. The placeholders in Cordell are inserted locally by the network browser and do not contain any

information for obtaining placeholder content from a database. As discussed above, the objects being edited in the HTML editor in Garber are not placeholders. In addition, Garber does not disclose editing objects in an HTML editor, where the objects can be used to retrieve content from a database.

**(B)(iii) The Examiner has not met the basic criteria required to establish a *prima facie* case of obviousness.**

To establish a *prima facie* case of obviousness, the Examiner must make the three basic showings described in Section (A)(v). The Examiner has failed to make any of the three basic showings and consequently, no *prima facie* case of obviousness has been established. Thus claim 6 is improperly rejected under §103(a).

**(C) Claims 12, 18, 24, 25, 33, 34, 38, and 45-47**

Claim 33 depends from claim 1 and recites presenting generated content for a representative content placeholder in place of the representative content for the placeholder, in a presentation mode. The generated content for the placeholder is generated based on the content source bound to the placeholder, and the generated content is presented according the formatting information associated with the representative content for the placeholder.

**(C)(i) Claim 33 is improperly rejected for reasons similar to those discussed in Sections (A)(i)-(A)(iv).**

Claim 33 depends from claim 1 and incorporates the limitations of that claim. The Applicant respectfully submits that claim 33 is improperly rejected for at least reasons similar to those discussed in Sections (A)(i)-(A)(iv) above.

**(C)(ii) Cordell or Garber do not disclose presenting in place of the placeholder, generated content that is formatted according to the corresponding representative content.**

Claim 33 is improperly rejected because Cordell and Garber, alone or in combination, do not disclose generating content for a placeholder based on a content source bound to the placeholder and displaying the generated content according the formatting information

associated with a representative content of the placeholder. The formatting information for the placeholders in Cordell is only used to present the placeholders and this formatting information does not affect the presentation of the embedded graphical objects that are eventually displayed in place of the placeholder. Similarly in Garber, the formatting information being preserved is associated with the object that is being edited in the HTML editor. Therefore, Cordell and Garber, alone or in combination, do not disclose or teach presenting generated content for a placeholder in place of the placeholder, and formatting the generated content according to formatting information associated with the representative content for the placeholder, as recited in claim 33.

**(C)(iii) The Examiner has not met the basic criteria required to establish a *prima facie* case of obviousness.**

To establish a *prima facie* case of obviousness, the Examiner must make the three basic showings described in Section (A)(v). The Examiner has failed to make any of the three basic showings and consequently, no *prima facie* case of obviousness has been established. Thus claim 33 is improperly rejected under §103(a). Claims 12, 18, and 34 depend either directly or indirectly from claim 33, and are therefore improperly rejected for at least the same reasons. Claims 24, 25, 38, and 45-47 incorporate features similar to claim 33, and are therefore improperly rejected for at least the same reason.

**(D) Claims 32, 35, 37, 40, and 48**

Claim 35 recites an edit mode, where the generated content of the placeholder presented in the presentation mode is replaced with the representative content of the placeholder in the edit mode. Both the generated content and the representative content are presented according to the formatting information associated with the representative content.

**(D)(i) Claim 35 is improperly rejected for reasons similar to those discussed in Sections (A)(i)-(A)(iv).**

Claim 35 depends indirectly from claim 1 and incorporates the limitations of that claim.

The Applicant respectfully submits that claim 35 is improperly rejected for at least reasons similar to those discussed in Sections (A)(i)-(A)(iv) above.

**(D)(ii) Cordell or Garber do not disclose an edit mode where the generated content of the placeholder is replaced by the representative content.**

Claim 35 is improperly rejected because neither Cordell nor Garber, alone or in combination, discloses an edit mode where the generated content of the placeholder is replaced by the representative content. The Applicant's specification discloses a process that determines whether the user is in a presentation mode or an edit mode. If the user is in the edit mode, the representative content of the placeholder is displayed. If the user is in the view mode, content is generated for the placeholder based on the content source bound to the placeholder, and the generated content is displayed. Specification, page 9, lines 1-8. Reverting to the edit mode from the presentation mode results in the representative content being displayed instead of the generated content. Specification, page 9, lines 9-11. As discussed above, the placeholders in Cordell have only one visual representation and therefore do not support displaying either a representative content or a generated content in accordance with an edit mode. Similarly, the objects being edited in the HTML editor disclosed in Garber have only one visual representation and Garber does not disclose presenting two different visual representations for these objects. Thus, Cordell and Garber, either alone or in combination, do not disclose an edit mode in accordance with claim 35.

**(D)(iii) The Examiner has not met the basic criteria required to establish a *prima facie* case of obviousness.**

To establish a *prima facie* case of obviousness, the Examiner must make the three basic showings described in Section (A)(v). The Examiner has failed to make any of the three basic showings and consequently, no *prima facie* case of obviousness has been established. Thus claim 35 is improperly rejected under §103(a). Claim 32 depends either directly or indirectly from claim 35, and is therefore improperly rejected for at least the same reasons. Claim 37, 40, and 48 incorporates feature similar to claim 35, and are therefore improperly rejected for at least the same reason.

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Page : 12 of 19

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Respectfully submitted,

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Subroto Bose  
Subroto Bose  
Reg. No. 55,014

Fish & Richardson P.C.  
500 Arguello Street, Suite 500  
Redwood City, California 94063  
Telephone: (650) 839-5070  
Facsimile: (650) 839-5071

### **Appendix of Claims**

1. (Previously Presented) A method for generating a document, comprising:  
inserting one or more placeholders in the document, each placeholder having  
representative content, the representative content having associated formatting information;  
binding each placeholder to a content source; and  
presenting the placeholders, including presenting the representative content of the  
placeholders according to the associated formatting information, the representative content of a  
placeholder being replaceable in a presentation mode by content generated based on the content  
source bound to the placeholder, the generated content being presented in the presentation mode  
according to the formatting information associated with the corresponding representative  
content.
2. (Original) The method in claim 1, further comprising formatting the  
placeholders.
3. (Original) The method of claim 1, further comprising annotating the  
placeholders.
4. (Previously Presented) The method of claim 3, wherein executable code is  
generated from the annotations, the method further comprising:  
executing the executable code to retrieve the content; and  
presenting the retrieved content.
5. (Previously Presented) The method of claim 33, further comprising rendering the  
document based on the content.
6. (Previously Presented) The method of claim 34, wherein compiling the  
placeholders further comprises compiling code to obtain content from a database.
7. (Previously Presented) The method of claim 34, further comprising embedding  
the code as attributes in the placeholder.

8. (Original) The method of claim 1, wherein the placeholder is a mark-up element.
9. (Original) The method of claim 8, wherein the mark-up element is an HTML element.
10. (Original) The method of claim 8, wherein the mark-up element is an XML element
11. (Cancelled)
12. (Previously Presented) The method of claim 34, wherein presenting the generated content according to the formatting information associated with the representative content of a placeholder includes using formatting, styling, or layout of the representative content of the placeholder to format, style, or layout the generated content.
13. (Previously Presented) The method of claim 33, wherein:  
generating content for each placeholder based on the corresponding content source includes interpreting the placeholders.
14. (Previously Presented) The method of claim 13, wherein each placeholder includes an annotation describing the content for the placeholder; and  
interpreting a placeholder includes reading the annotation that describes the content to replace the placeholder.
15. (Previously Presented) The method of claim 14, further comprising retrieving the content as interpreted by the annotations.
- 16-17. (Cancelled)
18. (Previously presented) The method of claim 33, wherein presenting the content includes rendering the content for viewing.
- 19-21. (Cancelled)

22. (Previously presented) The method of claim 33, further comprising storing metadata for the placeholder as a comment field in the document.

23. (Previously Presented) The method of claim 1, wherein inserting one or more placeholders includes:  
inserting one or more mark-up elements in the document.

24. (Original) The method of claim 23, further comprising updating a markup language document during run-time based on an original layout and content generated on-the-fly.

25. (Previously Presented) The method of claim 24, wherein the generated content replaces the placeholder.

26. (Cancelled)

27. (Previously Presented) A computer program product tangibly embodied in a computer readable medium, the computer program product comprising instructions operable to cause data processing equipment to:

insert one or more placeholders in the document, each placeholder having a representative content, the representative content having associated formatting information;  
bind each placeholder to a content source; and  
present the placeholders, including presenting the representative content of the placeholders according to the associated formatting information, the representative content of a placeholder being replaceable in a presentation mode by content generated based on the content source bound to the placeholder, the generated content being presented in the presentation mode according to the formatting information associated with the corresponding representative content.

28. (Previously Presented) The computer program product of claim 40, wherein the instructions to generate content for each placeholder based on the corresponding content cause the data processing equipment to:

interpret the placeholders.



29. (Previously Presented) The computer program product of claim 27, wherein the instructions to insert one or more placeholders cause the data processing equipment to:

insert one or more mark-up elements in the document.

30. (Cancelled)

31. (Previously Presented) A system for generating a document, comprising:

a processor;

data storage device coupled to the processor;

means for inserting one or more placeholders in the document, each placeholder having representative content, the representative content having associated formatting information;

means for binding each placeholder to a content source;

means for compiling placeholders into code to generate content for the document based on the content source;

means for presenting the placeholders, including presenting the representative content of the placeholders according to the associated formatting information, the representative content of a placeholder being replaceable in a presentation mode by content generated based on the content source bound to the placeholder, the generated content being presented in the presentation mode according to the formatting information associated with the corresponding representative content.

32. (Previously Presented) The method of claim 35, further comprising:

in the edit mode, modifying the associated formatting information for the placeholders and redisplaying the representative content of the placeholders according to the associated formatting information.

33. (Previously Presented) The method of claim 1, further comprising:

generating content for each placeholder based on the corresponding content source and, if in a presentation mode, presenting the generated content in place of the placeholder, the generated content being presented according to the formatting information associated with the corresponding representative content.

34. (Previously presented) The method of claim 33, wherein generating content includes:

compiling the placeholders into code to generate content for the document based on the content source; and  
executing the code to generate the content.

35. (Previously Presented) The method of claim 33, further comprising:  
presenting the content in the presentation mode; and  
in response to input specifying an edit mode, replacing the generated content with the representative content, and presenting the representative content according to the formatting information.

36. (Previously Presented) The method of claim 1, wherein the formatting information includes format information, styling information or layout information.

37. (Previously Presented) The computer program product of claim 27, further comprising instructions operable to cause the data processing equipment to:  
in the edit mode, modify the associated formatting information for the placeholders and redisplay the representative content of the placeholders according to the associated formatting information.

38. (Previously Presented) The computer program product of claim 27, further comprising instructions operable to cause the data processing equipment to:  
if in a presentation mode, generate content for each placeholder based on the corresponding content source and present the generated content in place of the placeholder, the generated content being presented according to the formatting information associated with the corresponding representative content.

39. (Previously Presented) The computer program product of claim 38, further comprising instructions operable to cause the data processing equipment to:  
compile each placeholder into code to generate content for the document based on the

content source;

wherein the instructions to generate the content include instructions to execute the code to generate the content.

40. (Previously Presented) The computer program product of claim 38, further comprising instructions operable to cause the data processing equipment to:

- present the generated content in the presentation mode; and
- in response to input specifying a reversion to the edit mode, present the representative content according to the formatting information.

41. (Previously Presented) The computer program product of claim 27, further comprising instructions operable to cause the data processing equipment to annotate the placeholders.

42. (Previously Presented) The computer program product of claim 41, further comprising instructions operable to cause the data processing equipment to generate executable code from the annotations to retrieve the generated content.

43. (Previously Presented) The computer program product of claim 27, further comprising instructions operable to cause the data processing equipment to render the page based on the generated content.

44. (Previously Presented) The computer program product of claim 39, further comprising instructions operable to cause the data processing equipment to embed the code as attributes in the placeholder.

45. (Previously Presented) The computer program product of claim 38, wherein the instructions to present the generated content according to the formatting information associated with the representative content of a placeholder cause the data processing equipment to:

- use formatting, styling, or layout of the representative content of the placeholder to format, style, or layout the content.

46. (Previously Presented) The computer program product of claim 38, wherein the instructions to present the generated content cause the data processing equipment to render the generated content for viewing.

47. (Previously presented) The system of claim 31, further comprising:  
means for executing code in a presentation mode to generate the content of the document;  
and  
means for presenting the document using the generated content.

48. (Previously presented) The system of claim 47, further comprising:  
means for presenting the content in the presentation mode; and  
means for presenting the representative content according to the formatting information  
in response to input specifying a reversion to the edit mode.